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RESOURCES

Roadside Design Guide 2002 Multimedia Presentation CD-ROM: The presentation summarizes the content of the **2002 Roadside Design Guide** and highlights most of the significant changes from the 1996 Edition. It includes slides, photos, and several crash video clips. Primarily intended as a marketing tool for the book itself as well as the NHI 2-day training course and 6-hour web training. This multimedia presentation is a useful tool for providing "the big picture" to anyone involved in design, construction and maintenance activities, and interested in reducing the severity of off-road crashes. A limited number of additional copies are available on request. Contact Dick Powers, 202-366-1320.

Safety Starts with Crash Data – a video for law enforcement officers: This video was produced through a collaborative effort of the International Association of Chiefs of Police, National Sheriffs Association, FHWA Office of Safety, Federal Motor Carrier Safety Administration (FMCSA), and National Highway Traffic Safety Administration (NHTSA). The video was packaged and sent to law enforcement agencies to be incorporated into training for officers investigating crashes. Contact david.smith@fhwa.dot.gov.

Safety Effectiveness of Intersection Left-and Right-Turn Lanes (FHWA-RD-02-089): This report presents the results of research on the safety effectiveness of providing left-turn and right-turn lanes for at-grade intersections. The report considers three-leg and four-leg intersections, whether there is a STOP sign or a traffic signal, whether turn lanes are provided for one or both major-road approaches, and whether the intersection is urban or rural. In addition, economic evaluations of the installation of left-turn lanes at various types of intersections were conducted, thereby allowing the calculation of benefit-cost ratios and cost effectiveness thresholds. In addition to the report, a six-page **Tech Brief (FHWA-RD-02-103)** that provides a synopsis of the report is available. Contact Michael Griffith at <mailto:mike.griffith@fhwa.dot.gov> or 202-493-3316 to obtain a copy of the Tech Brief. The full report is available at <http://www.tfhrc.gov/safety/safety.htm>

FHWA Safety Website on Roadside Hardware: This website can be accessed at http://safety.fhwa.dot.gov/fourthlevel/hardware/wzd_new.htm. The website is for anyone who wants to know, at a glance, which devices have been formally accepted by FHWA for use on the National Highway System.

Technical Advisory (T5040.35): Contains information on the state-of-the-practice for the design and installation of shoulder rumble strips and provides guidelines for their use on appropriate rural segments of the National Highway System (NHS). The Technical Advisory is posted at: <http://www.fhwa.dot.gov/legisregs/directives/techadv.htm>.

Safety Management Self-Assessment: This is a tool to enable States to evaluate their safety management processes. This self-assessment combines previous guidance on safety management with the seven quality principles of the Malcolm Baldrige National Award criteria. Contact Ken Epstein, 202-366-2157.

Prediction of the Expected Safety Performance of Rural Two-Lane Highways: A report that documents the algorithm for predicting the safety performance of rural two-lane highways. The algorithm estimates the effect on safety performance of roadway segment parameters including lane width, shoulder width, shoulder type, horizontal curves, grades, driveway density, two-way left-turn lanes, passing lanes, and roadside design, and of intersection parameters including skew angle, traffic control, exclusive left- and right-turn lanes, sight distance, and driveways. The algorithm enables highway agencies to estimate the safety performance of existing or proposed highways and to compare the safety performance of geometric design alternatives. The algorithm forms the basis for the Crash Prediction Module of the Interactive Highway Safety



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Design Model (IHSDM). Please contact Michael Griffith at mike.griffith@fhwa.dot.gov or 202-493-3316 to obtain a copy of the report. A PDF version of the report can be obtained at <http://www.tfhrc.gov/safety/99207.htm>. For general information about IHSDM, contact Ray Krammes at ray.krammes@fhwa.dot.gov or 202-493-3312.

Guidelines and Recommendations To Accommodate Older Drivers and Pedestrians (FHWA-RD-01-051) and **Highway Design Handbook for Older Drivers and Pedestrians** (FHWA-RD-01-103): These publications provide practitioners with a condensed source of practical information that links older road user characteristics to highway design, operations, and traffic engineering recommendations by addressing specific roadway features. These documents supplement existing standards and guidelines in the areas of highway geometry, operations, and traffic control devices. The information in these publications should be of interest to highway designers, traffic engineers, and highway safety specialists involved in the design and operation of highway facilities. It will also be of interest to researchers concerned with issues of older road user safety and mobility. To obtain copies of these documents, contact the FHWA Research and Technology Report Center, 301-577-0818, fax: 301-577-1421, or the National Technical Information Service, 703-487-4650, fax: 703-321-8547. Workshops are now available, for more information contact Dave Smith, 202-366-6614 or Beth Alicandri, 202-366-6409.

The revised version of the *Older Driver Handbook* is now available on the web:

Links to both the "long" version (including the rational and supporting evidence) and the condensed version (sometimes called the "guidelines" document) are on the Safety web site:

http://safety.fhwa.dot.gov/fourthlevel/pro_res_olderdriver_wdg.htm The third annual National Work Zone Awareness Week (NWZAW) will be held on Tuesday, April 9, 2002 at 11am at a work zone site located at the I-95/I-495 Interchange at Ritchie Marlboro Road in Prince George's County Maryland. The theme for this year's event will be **ROADWAYS KEEP AMERICA MOVING. DRIVE SAFELY IN WORK ZONES**.

National Review of the Highway Safety Improvement Program: This report discusses the best practices identified from a review of programs conducted in six States (Delaware, Oregon, Connecticut, Florida, Ohio and Iowa) by a team consisting of representatives from the Office of Safety (Ken Epstein and Carl Hayden) and the field (Gary Corino and Don Neumann). This report is on the Safety web site, <http://safety.fhwa.dot.gov>. Contact Ken Epstein, 202-366-2157.

Railroad Safety Statistics interim Report for 2001: This website can be accessed at <http://safetydata.fra.dot.gov/OfficeofSafety/>. Click on Forms/Publications.

NCHRP Report 470 TCD's for Passive Crossings: This report presents an evaluation of traffic-control devices to improve the behavior of drivers when approaching and crossing passive railroad-highway grade crossings. In addition to a review of the literature, the report includes a comprehensive analysis of the tasks drivers face at a passive grade crossing. Those responsible for signing and evaluating safety at grade crossings, as well as those interested in human factors in safety, will find this report informative. A key audience for the report will be those responsible for the Manual on Uniform Traffic Control Devices because it is intended that the recommendations be considered for the next edition. The report is available at http://www4.trb.org/trb/onlinepubs.nsf/web/nchrp_reports.

Pedestrian/Bicyclist Safety Resource Set CD-ROM (FHWA-SA-00-005): The CD contains information on how to improve pedestrian and bicyclist safety in communities across the nation. It includes information on facility design, planning, guidelines, good practices, and tools to aid in countermeasures development. This CD is intended for safety practitioners and other advocates who want to create "walkable/bikeable" communities. Contact Levenson Boodlal, 202-366-8044 or Ann Do, 202-493-3319.



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Safer Journey - Interactive Pedestrian Safety Awareness CD-ROM (FHWA-SA-00-009): This is an interactive CD that takes the user through various pedestrian safety scenarios. It has been developed to improve the level of pedestrian knowledge for all road users and safety practitioners. Also available on the web at http://safety.fhwa.dot.gov/programs/ped_bike.htm Contact Levenson Boodlal, 202-366-8044 or Ann Do, 202-493-3319.

Three reports in the Pedestrian Safety area:

- **Pedestrian Facilities Users Guide: Providing Safety and Mobility**, Report No. FHWA-RD-01-102. The purpose of this guide is to provide useful information on how to identify safety and mobility needs and improve conditions for pedestrians within the roadway right-of-way.
- **An Analysis of factors Contributing to Walking Along Roadway Crashes: Research Study and Guidelines for Sidewalks and Walkways**, Report No. FHWA-RD-01-101. The document summarizes the results of a study that examined the safety impacts of having sidewalks and walkways along roadways.
- **Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations: Executive Summary and Recommended Guidelines** (PDF only).

You can view these reports online at: http://safety.fhwa.dot.gov/fourthlevel/design_p.htm#crosswalk. Limited hard copies have been printed. For more information contact Ann Do, Office of Safety RD&T, ann.do@fhwa.dot.gov, 202-493-3319 or Tamara Redmon, tamara.redmon@fhwa.dot.gov, 202-366-4077.

The Bicycle Safety Education Resource Center: This website can be found at <http://www.bicyclinginfo.org/ee/fhwa.html>. This Resource Center provides bicycle safety education information for the following groups: Preschool (under age 5), Beginner (ages 5-8), Young (Ages 9-12), Teenage (13+), Adult, Senior, Motorists, and Adults Teaching Children. The Resource Center consists of three parts. The first part is **Database** where you can look for training materials for your intended audience. It even allows you to tailor your search and be as specific as possible. The second part is a **Database Guide** that identifies the training needs of the eight different audiences identified above. The third part is a **Good Practices Guide** that will guide you through the process of designing your own program. Hard copies of the **Good Practices Guide** are available. Contact Tamara Redmon at tamara.redmon@fhwa.dot.gov or Ann Do At ann.do@fhwa.dot.gov.

Safety Priorities (FHWA-SA-02-003): This brochure provides an overview of FHWA's priority safety programs (run-off-road, speed management, pedestrian/bicyclist, and intersection safety). To receive copies contact the Report Center at 301-577-0818 or fax your order to 301-577-1421.

The 2001 National Highway Safety Award: This brochure showcases the winning entries of the 2001 National Highway Safety Awards program. The entries were rated on their innovation, effectiveness, and efficient use of resources and were found to be outstanding examples of highway safety projects. Contact Kathy Hoffman 202-366-9265.

Maintenance of Signs and Sign Supports for Local Roads and Streets (FHWA-SA-01-009): This pamphlet is the first in a series of pamphlets intended to assist the safety community in training and implementing small projects and programs related to or resulting in improved safety on highways, bicycle and pedestrian paths, and highway-rail crossings. The PDF version is posted on the FHWA safety web site <http://safety.fhwa.dot.gov/media/brochures.htm>



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NHI Course 380060, *Work Zone Safety For Maintenance and Operations on Rural Highways*: This course has been revised to conform to the requirements of the Millennium Edition of the MUTCD. Contact William L. Williams P.E., Training Officer, 703-235-0539. Cost: \$150 for each student.

Africa Road Safety Review: Under sponsorship of a DOT intermodal international highway safety initiative, the Transportation Research Laboratory (TRL) conducted a research study that investigated the state of road safety in Sub-Saharan Africa. The objective of the study was to analyze existing data and information on the road safety situation in Sub-Saharan Africa in order to identify the data gaps and priority needs. The TRL report entitled ***Africa Road Safety Review Final Report*** has been published, and copies are available upon request. The report is also available on the international highway safety website at <http://safety.fhwa.dot.gov/fourthlevel/toc.htm>. Contact Harry Taylor, 202-366-2175 or Shirley Thompson, 202-366-2154.

The Model Minimum Uniform Crash Criteria (MMUCC): Cited in TEA-21 as one of the factors to be considered in applications for safety improvement grants. While it is voluntary, the States are encouraged to use it when revising and updating their traffic crash reports. <http://www.nhtsa.dot.gov> (People Safety/Crash Information/MMUCC). Hard copies are available. Contact Office of Safety Design, 202-366-9198.

Speed Management Exhibit and Handouts: An exhibit display and handouts that presents national data on speeding-related fatalities by road functional class. Handouts examine rural versus urban speeding data, and provide a historical perspective. Contact Beth Alicandri, 202-366-6409 or Davey Warren, 202-493-3318.

Road User Guide: This pamphlet was developed to help drivers understand the traffic control devices and regulations in Canada, Mexico, and the US. Differences and similarities are depicted. Contact Ernie Huckaby, 202-366-9064.

Read Your Road Brochure - *Every Highway User's Guide to Driving Safely*: This publication was developed by FHWA to educate the American public on how signs, signals, and pavement markings communicate important safety information to the highway user. It was first published in 1995 as a full-color, spiral bound publication. Copies were distributed to State DOTs and various highway safety partners. Hard copies are no longer available, however, an electronic version can be found at <http://safety.fhwa.dot.gov/media/ryr.htm>.

Moving Safely Across America CD-ROM: This CD is designed for the general public. Users can interact with and experience various aspects of highway safety, and test their understanding of these topics. For copies contact Ann Walls at 202-366-6836. An electronic version can be found at <http://safety.fhwa.dot.gov/fourthlevel/msaa/index.htm>.

Apple iMAC Moving Safely Across America Kiosk: This tabletop display is available for outreach activities by contacting FHWA Resource Centers. Contacts are: Eastern RC, Dean Larsen, 410-962-2372; Midwestern RC, Pat Hasson, 708-283-3595; Southern RC, Frank Julian, 404-562-3689; and Western RC, Keith Harrison, 415-744-2657.

Spanish Versions Of *Everyone Is A Pedestrian*: A set of brochures developed to teach pedestrians how to navigate through work zones, understand pedestrian signs and signals, and how to navigate around large trucks. Contact Tamara Redmon, 202-366-4077 or Ann Do, 202-493-3319.



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Pedestrian & Bicycle Information Center: Visit <http://www.bicyclinginfo.org> & <http://www.walkinginfo.org> for safety information. Contact: Tamara Redmon, 202-366-4077 or Ann Do, 202-493-3319.

AASHTO Highway Safety Design And Operations Guide: (The "Yellow Book") serves as a primary tool to identify potential safety problems and describes ways to eliminate safety problems and reduce crash severity. www.aashto.org. Contact Office of Safety Design, 202-366-9198.

AASHTO Strategic Safety Plan: The goal of this comprehensive plan is to substantially reduce vehicle-related fatalities and injuries on our Nation's highways. The plan includes the traditional AASHTO concerns for "infrastructure" as well as the driver, occupant, vehicle, and post-crash responsibilities. www.aashto.org. Contact Rudy Umbs, 202-366-2177.

Night Lights Video: This video takes a non-technical look at how retroreflectivity saves lives. A variety of situations and conditions are presented through the eyes of different motorists and pedestrians: teens, parents, and older drivers. Contact Peter Hatzi, 202-366-8036.

Red Light Green Light video: The purpose of this video is to provide the general traveling public and the entire transportation community with an increased awareness of the critical importance of intersection safety. The video allows viewers to identify steps they can take to improve their own safety as well as provide information on what the transportation profession is doing to help create safer intersections. It is also available on CD-ROM. Contact Hari Kalla, 202-366-5915.

Click It or Ticket: A high visibility seat belt enforcement campaign being implemented in a number of States. Current national seat belt usage is 73 percent. It is estimated that for every 1 percent increase in usage, 265 lives can be saved annually. Weekly highlights of the efforts by the States participating in this campaign are available at http://www.nhtsa.dot.gov/people/injury/airbags/clickit_ticket/current.html

Child Safety Website: This website provides a list of new child restraints and features, new vehicles and child safety features, tips for installing and using child safety restraints, and child seat help (fitting/inspection stations and technician contacts). <http://www.nhtsa.dot.gov/people/injury/childps/>

USEFUL SAFETY WEB SITES:

Safety Office: <http://safety.fhwa.dot.gov>

Roadside Hardware: <http://safety.fhwa.dot.gov/programs/roadsideHardware.htm>

Crash Tested Devices: http://safety.fhwa.dot.gov/fourthlevel/pro_res_road_nchrp350.htm

FAQs: http://safety.fhwa.dot.gov/fourthlevel/pro_res_road_faq.htm

Road Safety Audits: <http://safety.fhwa.dot.gov/programs/rsa.htm>

Retroreflectivity: <http://safety.fhwa.dot.gov/programs/retroref.htm>

Rumble Strips: <http://safety.fhwa.dot.gov/programs/rumble.htm>

Technical Advisory: <http://www.fhwa.dot.gov/legisregs/directives/techadvts/t504035.htm>





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Intersection Safety: <http://safety.fhwa.dot.gov/programs/intersections.htm>

Maryland Roundabout Safety Experience: http://safety.fhwa.dot.gov/fourthlevel/20/md_round.htm

Stop Red Light-Running: <http://safety.fhwa.dot.gov/programs/srlr.htm>

Pedestrian and Bicycle Safety: http://safety.fhwa.dot.gov/programs/ped_bike.htm

Bicycle Safety Education Resource Center: <http://www.bicyclinginfo.org/ee/fhwa.html>

Older Driver: <http://safety.fhwa.dot.gov/programs/olderdriver.htm>

Speed Management: <http://safety.fhwa.dot.gov/programs/speedmgnt.htm>

<http://www.fmcsa.dot.gov>

<http://www.nhtsa.dot.gov/people/injury/speedmgmt/index.html>

Safety Management: <http://safety.fhwa.dot.gov/programs/safetymgt.htm>

Section 402 Program: <http://safety.fhwa.dot.gov/programs/section402.htm>

Highway-Rail Grade Crossing: <http://safety.fhwa.dot.gov/programs/x-ing.htm>

Work Zone Safety: <http://safety.fhwa.dot.gov/programs/wsz.htm>

<http://ops.fhwa.dot.gov/wz/workzone.htm>

Work Zone Safety Clearinghouse: <http://wzsafety.tamu.edu/>

International: <http://safety.fhwa.dot.gov/programs/inter.htm>

National Data Model: <http://safety.fhwa.dot.gov/programs/ndm.htm>

Model Minimum Uniform Crash Criteria: <http://www.web2u.net/mmucc/>

National Model (TraCS): <http://www.dot.state.ia.us/natmodel/>

IACP Technology Clearinghouse: <http://www.iacptechnology.org/>

Safety R&D: <http://www.tfsrc.gov/safety/safety.htm>

Center of Excellence in Finite Element Crash Analysis: <http://www.arasvo.com/coe.htm>

Safety Analyst: <http://www.safetyanalyst.org>

Highway Safety Information System (HSIS): www.hsisinfo.org

Enhanced ITS Public Safety: <http://www.itspublicsafety.net>

FHWA Expertise Locator: <http://highwayexpertise.fhwa.dot.gov/ELMain.nsf/Main?Openagent>

Buckle Up America: <http://www.buckleupamerica.org>



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Pedestrian and Bicycle Information Centers: www.walkinginfo.org & www.bicyclinginfo.org

Insurance Institute for Highway Safety: <http://www.iihs.org>

AASHTO Safety Website: <http://www.transportation1.org/SafetyPlan>

Federal Motor Carrier Safety Administration: www.fmcsa.dot.gov